## Message

Smith, Emily J. [Smith.Emily@epa.gov] From:

2/1/2018 7:09:45 PM Sent:

To: Strynar, Mark [Strynar.Mark@epa.gov]; Lindstrom, Andrew [Lindstrom.Andrew@epa.gov]

CC: Medina-Vera, Myriam [Medina-Vera.Myriam@epa.gov]; Buckley, Timothy [Buckley.Timothy@epa.gov]

Subject: RE: Reporter's inquiry -- 2007 research on PFC's

Thanks Mark. I've forwarded the info to the ORD Communications Office so that the right people can be identified to respond to that question.

-Emily

Emily J. Smith **Communications Director EPA National Exposure Research Laboratory** 109 T.W. Alexander Drive MD-305-01

Research Triangle Park, NC, 27711

Phone: 919-541-5556

E-mail: smith.emily@epa.gov

From: Strynar, Mark

Sent: Thursday, February 01, 2018 2:08 PM

To: Smith, Emily J. <Smith.Emily@epa.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>

Cc: Medina-Vera, Myriam <Medina-Vera.Myriam@epa.gov>; Buckley, Timothy <Buckley.Timothy@epa.gov>

Subject: RE: Reporter's inquiry -- 2007 research on PFC's

Emily I responded back to you.

Mark

From: Smith, Emily J.

Sent: Thursday, February 01, 2018 12:55 PM

To: Lindstrom, Andrew < Lindstrom. Andrew@epa.gov >; Strynar, Mark < Strynar. Mark@epa.gov >

Cc: Medina-Vera, Myriam < Medina-Vera. Myriam@epa.gov >; Buckley, Timothy < Buckley. Timothy@epa.gov >

Subject: RE: Reporter's inquiry -- 2007 research on PFC's

Thanks Andy. Appreciate it.

Mark-Once I hear back from you regarding my questions below, I'll be able to forward this on to the ORD Communications Office so that we can get back to the reporter.

Thanks,

-Emily

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Research Triangle Park, NC, 27711

Phone: 919-541-5556

E-mail: smith.emily@epa.gov

From: Lindstrom, Andrew

Sent: Thursday, February 01, 2018 11:34 AM

To: Smith, Emily J. <Smith.Emily@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>

Cc: Medina-Vera, Myriam <Medina-Vera.Myriam@epa.gov>; Buckley, Timothy <Buckley.Timothy@epa.gov>

Subject: RE: Reporter's inquiry -- 2007 research on PFC's

Emily,

Here's the paper.

Thank you,

Andy

From: Smith, Emily J.

**Sent:** Thursday, February 1, 2018 11:23 AM **To:** Strynar, Mark < <u>Strynar.Mark@epa.gov</u>>

Cc: Medina-Vera, Myriam < Medina-Vera. Myriam@epa.gov >; Buckley, Timothy < Buckley. Timothy@epa.gov >; Lindstrom,

Andrew < Lindstrom. Andrew@epa.gov>

Subject: RE: Reporter's inquiry -- 2007 research on PFC's

Mark,

I'm confused about this email chain. Please work with me and the EPA press office before responding to reporters.

What information does the reporter still need? It looks like some of the question below that I highlighted in yellow have not yet been answered. Also which paper is he referencing? Nakayama et al., 2007? If so, can you send me a copy of that?

-Emily

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From: Strynar, Mark

**Sent:** Thursday, February 01, 2018 10:06 AM **To:** Smith, Emily J. <<u>Smith.Emily@epa.gov</u>>

Cc: Medina-Vera, Myriam < Medina-Vera.Myriam@epa.gov >; Buckley, Timothy < Buckley.Timothy@epa.gov >; Lindstrom,

Andrew < Lindstrom. Andrew@epa.gov >

Subject: FW: Reporter's inquiry -- 2007 research on PFC's

Emily,

I was able to answer the technical questions but am passing on the one in red. I am not sure how to respond.

Mark

From: Barnes, Greg [mailto:gbarnes@fayobserver.com]

**Sent:** Tuesday, January 30, 2018 3:14 PM **To:** Strynar, Mark < <u>Strynar.Mark@epa.gov</u>>

Subject: Re: Reporter's inquiry -- 2007 research on PFC's

Thanks for the reply, Mark

I read the study and was hoping you could help me interpret it.

Here's some of the questions I have:

- \*. The map shows that the fifth-highest test result came from near (below?) the DuPont plant. Do you have a breakdown of the results for PFOS, PFOA and C7 at that site?
- \* Did that site test higher than any of the others for any of those three contaminants? If so, which contaminated tested higher, and what was the next closest to it?
- \*I was surprised to see that in 2006, when the samples were taken, the highest concentrations of PFCs were found way above the DuPont plant, and only one of the top 11 was below it. Did you determine sources for PFCs in the top 11 sites, what were they, and have they stopped putting PFC's in the river basin? (Fayetteville's utility says it has no GenX or PFOA in its water supply.)
- \* I'm new in the reporting of GenX and other contaminants in the Cape Fear so please bear with me. In layman's terms, what is the major difference between PFOA and PFOS? (Everyone refers to PFOA as C8.) Did DuPont use/create both PFOA and PFOS?
- \* Can you pass this question on to your PR folks? The study ends with the following statement: "While no drinking water measurements were made in this study, these findings indicate the potential for exposures above this (New Jersey) threshold if PFOA is not effectively removed by drinking water treatment plants using the Cape Fear River and its tributaries as source water. The removal of all the PFCs by water treatment processes should be evaluated.....

The study's conclusion casts a dire prediction that has proved true 10 years later. What actions did the EPA take as a result of the study? After the apparent diseases and outrage spawned by DuPont's 30-year release of C8 into the Ohio River at Parkersburg, West Virginia, it seems logical that the EPA would have tested drinking

water below the DuPont plant in North Carolina long before last year, especially after its own study sounded the alarm bells. Why wasn't the drinking water tested sooner?

On Tue, Jan 30, 2018 at 11:43 AM, Strynar, Mark < Strynar. Mark@epa.gov> wrote:

Hi Greg,

I can only comment on the technical details of our work. Not on the response of the Agency to our work. If you want that info you will need to follow up with our PR group whom I can put you in touch with.

## Some background:

Our first paper we published on PFAS in the Cape Fear river was Nakayama, et al., 2007 which reported on the occurrence of PFAS in the Cape fear watershed in surface water. This was NOT in finished drinking water. I am attaching the paper. We had no study before 2007 on PFAS in water. Second I would point out the compounds were not regulated chemicals at that time.

As this work was in surface water and not finished drinking water this was not immediately an issue. You should be aware that 6 of the analytes reported on in the Nakayama et al., 2007 paper were included in the US EPAs Unregulated Contaminant Monitoring Rule 3 study to look at occurrence of PFAS nationally in drinking water. This was done in 2013-2015 but was in the planning stages prior to 2013. <a href="https://www.epa.gov/dwucmr/third-unregulated-contaminant-monitoring-rule">https://www.epa.gov/dwucmr/third-unregulated-contaminant-monitoring-rule</a>.

In January of 2009 there was a provisional health advisory for PFOA/PFOS in drinking water in response to some contaminated drinking water in Decatur, AL. Thus I would say there were ongoing regulatory efforts at this time. https://www.epa.gov/sites/production/files/2015-09/documents/pfoa-pfos-provisional.pdf

In addition it should not be assumed chemicals found in the source water are delivered in the finished drinking water. We now know much more on this topic relative to PFAS and the ability/or inability to remove effectively in finished drinking water.

Last in May 2016 the US EPA put out a Health Advisory for PFOS/PFOA at 70 ng/L in drinking water. <a href="https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos">https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos</a>

Mark

From: Barnes, Greg [mailto:gbarnes@fayobserver.com]

**Sent:** Monday, January 29, 2018 3:37 PM **To:** Strynar, Mark < Strynar.Mark@epa.gov>

**Subject:** Reporter's inquiry -- 2007 research on PFC's

Hi Mark,

This is Greg Barnes, senior reporter with The Fayetteville Observer. I came across your research -- Perfluorinated Compounds in the Cape Fear Drainage Basin in North Carolina -- and realized that it was dated 2007. There's also an indication that you had done an earlier study on the same topic. My question is what happened after your research was published? Did warning bells go off back then, as they did in June 2017, when the Wilmington paper broke the story about GenX? If not, why not? What did the EPA or DEQ do with your research? It appears that public drinking water was not sampled until around 2015, according to the research by Dr. Knappe and others. Why did it take that long for someone to deduce that if PFC's are in the river, they are likely to also be in drinking water?

Please help me understand why this wasn't a huge issue 10 or more years ago.

Thanks

Greg

(910) 486-3525

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